

Report of the Shellfish Constable

To the Honorable Board of Selectmen
and the Citizens of the Town of Mashpee:

The Mashpee Shellfish Constable, and all shellfish related functions and programs were transferred to the Police Department when the Shellfish Department was eliminated during Town government reorganization in 2008. The move increased efficiency and worked out well.

Approximately 520,000 oysters from the Mashpee oyster aquaculture/eutrophication mitigation project were harvested from January through March and December 2008. This removed about 260 kilograms (kg) of nitrogen from the estuary based on laboratory analysis of the nitrogen content of our oysters. The harvest was 2.6 times more than the previous year, and half way to the goal of a million oysters a year. In the spring of 2008, some of the oyster seed started in 2007 was removed from the trays in the Mashpee River and spread out along the shoreline of Mashpee Neck from the mouth of the Mashpee River to the Town Landing to make oyster beds. By December, they were ready for harvest. The popularity of oystering is reflected in the increased numbers of shellfish permits issued. The massive fish kill in the Mashpee River that occurred in the summer of 2005 because of oxygen depletion from a thick algae bloom growing on excess nutrients has not been repeated since we have been growing large numbers of oysters in the river. Oysters filter out algae for food. Seeding was increased in 2008 with 800 oyster spat bags (oyster seed set on pieces of shell in mesh bags), and million single (unattached) tiny oysters from the hatchery placed trays in the Mashpee River. Another 50 oyster spat bags were placed in Hamblin Pond. By the fall, more than a million oyster seed were growing in the trays. Most of the seed was funded by fees from Mashpee shellfish permits, and some of the spat bags were funded by the Massachusetts Division of Marine Fisheries (DMF) through Barnstable County.

The DMF also funded 800,000 quahog seed grown in the propagation program. Scallop seed was purchased with funds from Mashpee shellfish permit fees. The very small seed is grown in upweller tanks and then transferred to trays in the estuary to grow larger for planting. Quahog seeding makes beds in previously unproductive areas, and supplements the wild populations. Scallop seeding must be done every year to maintain the fishery, because the scallop populations do not sustain themselves in the wild now. This was another poor season with only about 10 bushels of scallops harvested in Waquoit Bay from October through December 2008. The scallop seed released in the fall of 2007 was small because of lack of food. The water was unusually clear. Smaller seed suffers higher losses from predation. Next year might be better because we got more seed and it grew larger (There was more phytoplankton food this year). The members of AmeriCorps Cape Cod put in many hours working on the propagation program. AmeriCorps members Jennifer Burkhardt and Sanjoy Paul

put in many more hours working on the propagation and water quality programs as individual placements with the Shellfish Constable.

Enforcement, resource management and shellfish propagation resulted in an abundance of quahogs again this year. The wild soft-shell clam populations have not recovered from the precipitous decline in 2006, but more seed has set in some areas.

The Mashpee water quality monitoring program was upgraded with new laboratory facilities at the Police Department. The Mashpee Wampanoag Tribe started a new water quality monitoring program in collaboration with Town's program. The tribe received federal funding for 2 new state-of-the-art automatic water quality monitoring units, and lab analyses of samples from Popponeset and Waquoit Bay. One of the monitoring units will be deployed in Popponeset Bay and the other in Santuit Pond. Blooms of blue-green algae have become a problem in Santuit Pond. In addition to Mashpee volunteers, other collaborators for monitoring include the Cotuit Waders, the Mashpee Environmental Coalition, SMAST (University Massachusetts Dartmouth), and the Waquoit Bay National Estuarine Research Reserve.

Propagation Program:

- 800,000 quahog seed
- 1,000,000 single oyster seed
- 850 oyster spat bags
- 200,000 bay scallop seed

Shellfish Permits Issued: 1040

Resident/taxpayer	609
Senior resident/taxpayer	377
Non-resident/taxpayer	40
Commercial	14

The Shellfish Constable would like to thank the boards, commissions, departments and people of the Town of Mashpee for your support and assistance. Thanks also to the Deputy Shellfish Constables, Waterways Assistants and volunteers. Special thanks to AmeriCorps Cape Cod, and the Barnstable County/DMF shellfish programs. Thank you to the Mashpee Chamber of Commerce for the Environmental Commitment Award.

Respectfully submitted,
Richard H. York, Jr.
Shellfish Constable